VOL. XVIII. NO. 23



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to Burroughs A 9, Atlanta firm reports/8

rite or an unfair advar age to incuments in the U.S. House?/14



REACTION/ANALYSIS

IBM cabling plan: Untangling the confusion

By John Dix CW Staff

This user knows what it will do when quake hits

Wast Coast Bursts:
PALO ALTO, Calif. — With
g, the big quake strikes.
Shock waves registering 7.
Ichter scale suddenly topple th
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Cobol-80 moves one step closer to acceptance

By Peopl Office

to bar chip maker

Defense acts | Computer Associates acquires Sorcim

of year farmina.

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agreed to sculer all assets of the per-ion, workly held form for each pur-valent period and for additional purposes of several period and for additional purposes of several as 485 million. Several period as configure on the performance of will go with the stronglys we have." Societies revenue for the facult intensed and we proceedings as year just ended are expected to be spen for microcomputers, Manus add-ign allies, according to Armold 8. of "Societies Strength is Depressible,"

Monitor with president of many conting with Company Americans, in Section 2012, 1979

NCR establishes personal computer division

BATTON, Ohio — NCR Corp, amounced hast week the establishment of a personal computer division and named Vernon W. Yates, company vice-president, as general manager of the new cestity.

The division will employ approximately 1,100 people at versions site in the U.S. and abroad and will be in the U.S. and abroad and will be crected from INCR headquarters here, according to a probleman.

Yates, 48, was formerly vice-presi-dent for the Electronic Punds Trans-fer and Data Services Division. He-joined NCR in 1979 when the compa-ny acquired Comten, inc., where he had worked nearly 10 years in mar-

informatics General Corp. Inked another agreement with a microcomputer vendor to provide a micro-mainframe link. This one was with Ashton-Tate/4

White installing a new processor during a major software development project may not sound like fair, the first commercial user of Burroughs Corp.'s A 9 mainframe reported that it went without a history's

Local phone companies told the Federal Communications Commission that its access charge plan volud load to massave bypass, but youture communications users disagreed/10

high-tech arms must pursue a sursen-gy of "complementary cooperation" with world competitors in order to prosper, a speaker said ... Israel in-dustries should focus on software and bundled systems rather than hardware alone, an industry expert

NEWS SUMMARY advised ... Israel has achieve much alreedy, israel President Chai-Herzog said, but the nation mu move quickly in tapping its potenti-turael software houses look to it crease exports through new marke-ing skills and joint ventures/11-13

is computerized correspondence ma agement purely for improving congra-sional service to constituents?/14

Computerized constituent of

dence management is the rule of thumb now for offices of the U.S. House of Representatives/15

Just as IBM's mainframe line evolved from the architecture of the 360, Big Bue's workstations will be based on its Personal Computer, a consultant predicted at a forum last week on Personal Computer and Workstation Trends for End-User Productivity/16

CW at the Canadian Data Processing Management Association Conference Some MS management Missociation Conference Some MS management Control of the Conference Some Missociation (Conference Some Missociation (Conference Miss

The New York Social Services Department is establishing a statewide computer system for processing public assistance checks, food stamps and other human services/23

The Oxford University Press will public a computerized version of the vener ble Oxford English Dictionary/24

France is experiencing the same prob-lems as the U.S. in drafting a national computer crime law/28

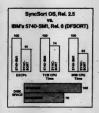
An on-line programming developme and library management system is given a manufacturer better controver over its programs/37

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Here we go again-Improving the Sorting Breed

That sleek young thoroughbred out in our main paddock is SyncSort OS, Release 2.5. It's by SyncSort 2.4 out of that celebrated brood mare, High Tachnology. And it's destined to win a lot of prizes on OS/VS and MYS/XA tracks.

IMPROVING THE UNIMPROVABLE: Until now, SyncSort 2.4 was the best OS/VS sort program ever bred, it was far faster than any IBM sort. And it was easier to use, too—thanks to a tack-room full of advanced features.

SyncSort 2.4 probably could have continued to win prizes for years. There was only one catch—It wasn't good enough

PICKING TOMORROW'S WINNERS: We knew that new hardware and software systems would create opportunities for evolution of advanced sort programs. Speed would still be essential. But productivity would continue to styrocket in importance so that's the way we bred 2.5.

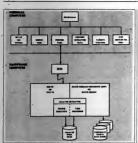
FASTER SORT PERFORMANCE: We've added new sorting techniques to Sync5ord 2.5 to make it the only sort that outperforms 2.4. You can expect savings in critical resources up to those shown at lower left. And that can add up to a big increase in lotal systems throughput.

NEW PROGRAMMER PRODUCTIVITY FEATURES: As any seasoned sort-watcher knows, there's a lot more to data handling than sorting, SyncSort 2.5 introduces a Data Utility set that applies its proven techniques to a wide range of processing and reporting jobs.

For example, with a single execution, 2.5 can sort, format and present data in virtually any form you want:

- SortWitter—a powerful lod that can produce eidensive reports as a by-product of your normal sorting—without user exits and the associated programmer investment. Headers, trailers, total and sub-total capabilities provide fleable formatting.
- Record Formatting—To existing features like INCLUDE/ OM/II, INFEC/OUTREC, SUM and others—all of which have been expanded—2.5 adds new and useful capabilities like data conversion, editing, insertion of literals.
- Multiple Output From a single sorted file, you dan create multiple files and reports. Each can include the same or different data as determined by INCLUDE, OMIT, OUTFIL or OUTREC parameters.

If you're tired of betting on sort programs that empty your pockets of resources and are tough to handle, give us a call. We'll arrange to have SyncSort OS 2.5 run a few furlongs on your own turf.



Informatics, Ashton-Tate set micro-mainframe link

d?" in the April 23 issue of Com

DG chooses IBM's SQL for its relational DBMS

By Paul Gillin CW Surf



Firm reports no hitches in switch to Burroughs A 9



RST USER

By Tom Henic

CW Start
ATLANTA — Being the first use
of a new-technology mainframe a
the same time your company is going
through a major software develop
ment effort sounds like the stuff or
which DP nightmarss are made. By
nearly three weeks after installing
the first commercially available Burroughs Gorp. A 9, the DP chief for
building supplies retailer here asie

the mol-range processor was brough up without a hitch.

The only difficulty has bent sift ing through the system documentation in attempts to understand all the new features available on the system, according to Ted licDaniel, with facil services manager with Wes Building Material, Inc. The computnistabled the top-of-the-line member instabled the top-of-the-line member.

F. last month.
Announced in Junuary, the A 9
was billed as the first in a new series
of processors that will eventually replace the older B series of mainframes; Burroughs introduced the A
9 Model B, D and F earlier this year

places the B6900 processor line.

West Building Material had becusing a Burroughs B6930 processor with 6M bytes of main memory.

also had a mixed bag of application

Previous conversi

many of those applications programs had been through several privious system conversions, the movestenisty of which was a swite from a time-sharing service to an in-house processing system. The fir decided it was time to redesign those applications, many of which were developed for a batch processing environment, to operate in an interactive environment that will eventuall support an on-line network.

But the software developmer project was too much for the B6634 It could not keep up with both a soft ware development and productio work load, McDantel said, noting the some programs were taking as much as an hour to compile. The DP department had Do operate three shifts, five

While many DP shops migrate to a new system gradually by running both the new and old systems for a period of time, that was not an option for West Building Material. Its DF center was too small to support both CPUs at the same time, so it decides to remove the B6930 when the A's was installed. The periphrais configuration did not change during the migration McDaniel novem.

The first objective was to bring the new processor and install the is est version of Burroughs' Mast Control Frogram (MCP), Relea 3.41, without causing problems in users or programmers. The install tion process went smoothly, according to McDauleil, who said it took Burroughs roughly eight hours to insta and test the 4.9.

The installation of Release 3.41 also went fairly smoothly, but

McDaniel noted that some older programs had to be recompiled to ope ate in the newer environment, it too roughly five hours to recompile 35 to 400 programs. Other programwritten to operate under the thre

require recompilation.

The next objective for McDaniel learning how to take a few house a recommendation of the property of t

within the MCP.

That architecture allows syst memory to be resurranged by a c sole operator to suit the work lo McDaniel said the system mem can be configured one way to han daytime work load of both devel ment and production operation them altered to handle a night:

ciently.

Trying to identify and learn ho to use those new features has ke McDaniel and his staff flipple through the A 9 documentation McDaniel plans to enroll in Bu roughs' A 9 informational course when they have never the plant to the p

Even without understanding a the A 9's extra features McDanisaid the newly installed system in greatly improved performance. He has eliminated the third shift and re

assigned the lone third-shift operato to the second shift. Another performance boost ha come from cache messory on the A is a feature not available on the olde B0430. McDaniel and most applice

85930.
"We've gained so much speed that we don't have to do production in the



Section A Control of C

1005 has been a coming part for SM ever of least the early 1770's Tile energy: Talest count SM to design the service of SM to design to the early development transmiss, or of the particular transmiss of the particular transmission tr

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surces should suddenly cease to be railable, the pharmaceuticals sup-ier simply would switch its con-ting work load over to a backup oceasing facility in Northbrook, , owned and operated by Sungard covery Services, Inc.

Becovery Services, Inc.
System size routinely creates
backup copies of all its critical business data and transports the resulting tapes — some of them as often as
every day — to an off-site storing
vault, according to Buriegh Cost,
System's vice-president of corporate
information services. The practice of
backing up is key data file is anothor security measure that the compaty has in common with large sucre in

what distinguishes Syntex's disas-ter recovery plan from those at other organizations is the care with which the firm has backed up its crucial communications lines. The drug man-ulacturer reportedly has also gove to unusual lengths to document and test

its plan.
"During a disaster, companies have to be able to quickly connect their end users to their backup processing sites," Cook said. "The communications arrangements that have to be made to switch users from one

systems iocation to another are ex-tremely complex and time-consum-ing, especially for organizations that have a lot of on-line, interactive ap-plications. I wouldn't want to walt for a disaster before I sarted figu-ing out how to make the necessary

to got how to make the encounty continue.

The continue of the

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COBOL tom page 1

The next public review will center on five substantive and numerous editorial changes made since the last public review. The substantive changes are primarily "intended to case conversion from one version of Cobol to another," said Don Warren, project leader of Cobol compiler de-

volupment at Wang Laboratories, Inc. In Levelt, Mann., and XXLA Commitin Levelt, Mann., and XXLA Commitin Committee of the Committee of th move data faster

III The RECORD CONTAINS in TO a clause has been reinstated as a non-choicete feature.

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Operating companies hit for seeking waivers

the 12.75% al

FCC extends contract on local access payments

VASHINGTON, D.C. — IBM and eral other vendors lambasted the ested Bell operating companies last month for allegedly trying to sedo the Federal Communications

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48 New Features Totaled by Program FDR Ver. 4.8 Enhancements SAR Ver. 4.8 Enhancements DSF Ver. 4.8 Enhancements Ver. 4.8 Enhancements BR Ver. 4.8 Enhancements

More in '84

Manhattan to be inaugural site of Cabling System

he used to hard-wire 7,000 workstate with the company's IBM 3270 population, as well as provide the wiring for the company's recently procured ATAT System, 55 giving the reach exchange. "We thought it was important to use

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IBM refocuses videotex effort

Cabling System seen seed of IBM's local net plans

By John Dis

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THE RELIABLE, DEPENDABLE DUPLICATORS.

Israel urged to find unaddressed niches in high tech



By John Galler

JERUSALEM — Israel's high-tachnology industries must pursue a strategy of "complementary cooperation" in order to survive and prosper in a worder to survive and prosper in a worder to survive and prosper

That approach, eccording to Bill-Burvis, president of the Haunsteaturer Association of Israel, spease that this small antibute seems of the thin that the main antibute seems that the president seems to be a support of the seems of the seem

Finding a place for farnell industry, in the listernational economy is one of three major problems confronting that nation, according to Burvitz Two of those continuing dilemmas laraes's trubbled relations with its Middle East neighbors and the relationship between the diverse nation at an are religious groups within the country, must be approached as po



Relitors review lensel-made products at the recent Pourth Jensealem Centre

Solidaying lareal's position in the industrial world in a problem that can only be addressed through the development of innovative technolopies and skillful markstag tectno-"We are now in the third smin stage of lareal's development," Burvila and, "Our early efforts were devoted whely to the creation of the smition." Deplical systems, the infrastructure. There, we can show our achievements with pride. Our use of limited must be staged to the second of the smither of the means with pride. Our use of limited

physical systems, the infrastructure. There, we can show our achier ments with pride. Our use of limit resources has been phenomental.

"The second stage has been one defending the state. We have be forced to develop inchnologies a strategien that, regrettably, are discussed to the contract of the second stage of the second

our balance of trade."

The creation and defense of the small nation — its population is

had huge economic costs, illustrated by rapid inflation, a high level of for eign debt and a troubling balance-of payments deflict. According to Hervitz, larnel's annual 85 billion defense budget alone accounts for more than a quarter of the gross as

ional product. Intraffic highly advanced educional and health care systems a line exceedingly county to make the care of the condense and health care with tructures are smaller to (that of) tense. Hurvitz said: "They repeat high budget costs for definenced, but we may utilize the skill be inchedingless and the produce he inchedingless and the produce he inchedingless and the produce in these areas to conquery markets."

Nave produced sophasticated ware and software systems (see r below) and personnel skilled in se of those modern technologies. goal of larnel's civilian indusis to transform those technointo products targeted to specifrizes niches.

"Our research and development and the section of th

Israell industry is already movin in the direction outlined by Hurvitz Exports of high-tech products our rently account for nearly 20% of Israel's total industrial export revenues and Hurvitz expects that figure wit increase by more than \$60% — to when of short \$6.0000 her 10000.

"Our success will lie in the within tion of Isrnel's advantager," he mi "Since we support these large of feese, educational and health as structures, our advantage can lie the use of these sectors to develop a portable products. It has been as that secessity gives birth to tion. In view of our secessity, then

Software, bundled systems seen key to Israel's high-tech future

By John Gallen

JERUSALEM — Software and bundled systems, rather than hardware alone, hold the key to future success for Israel's high-technology industries, according to Usia Galli. Speaking at a special plenary sessten durins the recent Furnth Jerush

soluting the recent Fourth Jerusalem Conference on Information Technology here, Galli, president of Elron Electronic Industries Ltd., said export revenues for Israelmade hardware and peripherals have exhibited sluggish growth in recent years.

been the slowest-to grow," Galli said. "We cannot compete strictly on hardware in the world economy, that is a very difficult task. The major hardware companies are just too established in these mariests."

According to Galil, the strategy for surmounting that obtacle is felaratel firms to offer innovative software packages and bundled systems — combining advanced harvare and "application softwar know-how" — that address specific tasks. One such niche in which the laraelis already compete successful y, for example, is medical-imagin technology. Bundled systems it that area, he said, account for not that area, he said, account for more said, and the said account for more said, account for said of the said, account for more said, account for more said, account for more said.

nan \$100 million annually in e

Other important areas for futur revenues will include communications systems and computer-assist ed publishing.

Ualli said the computer and extroites industry in Israel had on bined revenues totaling some inbilition last year. He predicts am amail growth rate of nearly 20% it the decade, a level of increase the bloom of the computer of the compulation of the computer of the combilition by 600. Beyond that the he said, a shortage of skilled on outer, science, necessarial may checuter, science, necessarial may che-

"We are seeing the growth of ca divity and, innovation. The growth has been felt on a large scal in the peat few years with the man small companies that have startee Not all will survive, but the indutry has already shown that it can be very profitable, and it can reach the way to the control of the control of the way to the control of the control of the way to the control of the control of the manufacture of the control of the control

"One of our major problems," of ill continued, "has been access capital. We have surmounted th barrier. That acceptance of the ilraell entrepreneur is of extreme is portance to our future economgreenth."



Israel's President Herzog encourages high-tech growth Conference keynoter echoes that message, suggests niche markets for the country





The second most important part of any computer

Joint ventures seen critical to Israel's export efforts

By John Sedent

Israeli software house sees connection to U.S. as key to success

How to turn your employees into experts in computer communications networks.

Honeywell



Role of computerized mail brewing concern in Congress



House speeds correspondence with automated replies

Dy John Donner

When Lyndon B. Johnson of Texas was in his furt congressionis term in 1988, he was conscissions about in 1988, he was conscissioned by the second of the sec

Things are different today. A letter to a constituent from a congrussional representative is probably a bolismater a programmed management.

computer memory of stock replies.

Computerized management of constituent mails now the rule of thumb among Washington, D.C. lawmakers. Their biggest issue now seems to be

ITT Dialom, Inc. has been offering time-sharing services on Capital Rill since 1975; 424 regres embatives use the Dialom service. Another 65 was stand-alone systems configured by Beachmark Computer Systems, Inc. These stand-alone systems combine Benchmark's Correspondence Tracking. Management Systems (CT/MS) software with Cuke Systems CDr.; handware. Benchmark has offered Systems CDr.; h

sion first offered in the 1970s.

The Dialcom and Benchmark systems are the two most popular correspondence management systems on Cogistol Hill today. Dialcom has traditionally been a time-sharing service, running of minicomputers located in Silver Spring, Md., but it recently begin offering Texas instruments, inc.

capable of creating constituent files, with up to 200 categories of information in each. Dialoco charges 875/s/mo per user for up to 100,000 categories of the constituent files. Additional users are billed at \$12. bour. A more economical version. allowing 20 000



Bill Quiter of Rep. 188 Richele' staff uses a Cado 20 24 to serve Alabarra's 3rd district constituents.

files, is available for \$350/mo per user and \$12 hour for additional users. If a user wasts to creat more files, Dialcom charges 40 cests/mo per blood of type (2,045 inters).

Benchmark, on the other hand, charges is less beginning at \$7,500/mo for a three-ter system, up to 50,000 constituent files an wrinter. Its largest system costs \$2,500/mo i

printer. Its largest system costs \$2,900/mo for si terminals, with up to 100,000 constituent file two printers and moderns. If an upgrade sought is Benchmark is approved, capacity will be "unlimited," according to Benchmark.

The shifter to see

The ability to produce form interes that are aimost impossible to distinguish as form listers is perhaps what mides recomposational mines. When a latter about a specific composational mines. When a latter about a specific signed a protestignated code based on the launar. The code allows the computer to recall a standard response. Aides call the text up for editing if an answer is languageoperista, as and doe can review it. A narwer languageoperista, as and doe can review it.

e next morning.

When congruentes offices get bomberded by constituent sail, as they did in early 1983 in rection to a congruentessi plan to withhold 10% of temperature interest because, correspondence assumed assumed to witch flep, Bill Nichols (D-Ala) was get ting 900 letters a day at that time, but C7/88 allowed that some households were conding out

ever saved by sending only one response to each return address, Nichels' slide Bill Quinn said. Quinn said turnaround time for responding to the office's weakly swenge of 800 letters has been su from 10 to 14 working days to five to 10 work-

not from 10 to 14 working days to five to 10 wo ing days with CT/MS. "The difference it makes in seen incredible," he said.

Lit Webl, an elde to Ren. Andy Ireland (TuB)

agrees that correspondence management has become nearly a necessity. "Its cost is low enough make it almost inscreasable not to use it," He said. "I think the people of each district are gots to come to expect it. We're in the midst of an ele

The major complaint congrustional sides have about the system is that it does not process enemgia information. Congrussional districts are composed information. Congrussional districts are composed of between 800,000 and 660,000 people, and one maior congrussems may owner more than 100,000 constituent files. To increase engels(*), Bashy like bors, vice-president of Brechmerk, and the sum software system, called Alba, by a congret, Albay would allow representative to crease as unkinstensable of Constituent files, Sushborn said.

Meanwhile, Paul Warren, a spokesman for Dialcom, said the company currently sees no market demand for increased capacity.

ment capacity is or is not on the rice, Dialco seems to concede that time-sharing's days as numbered. While Warren insisted that "the end not in sight," he added, "ultimately, monte will a

Benchmark, ITT Dialcom letter management systems top House list

washires (to), D.C. — The most popular correspondence management systems used by members of the House of Representatives today are a time-sharing system offered by ITT Disicom, Inc. and stand-alone systems leased by Benchmark Computer Systems, Inc.

Benchmark offers House members three models of Cado Systems Corp. hardware: the eight-port System 20/24 28, the four-port System 20/24 and Cado CAT III. The 20/24 and CAT III have 48K-byte processors, while the 20/28 has a 96K-byte processor, according to Randy Sanborn, vice-president of Benchmark. All the Cado hardware uses Intel Corp.'s 8-bit

Benchmark phans to ask House Information Systems, the federal agentry that oversees an approved flat of nardware and software for use in the House, for approval to provide a system with greater capacity. The Able ger Adaptive Transactional Syste supermicro with a main memory

The supermicro would support to maximum of 64 users per office is stead of the present eight, providisence of the present provide and the present pres

representatives in January.

Dialcom started off with Bot ywell, Inc. hardware, but now us Prime Computer, Inc. 550s, 750s as 550s, located in Stiver Spring, Md., topport the time-sharing service.

apport the time-sharing service. The company began offering the lexas Instruments, Inc. Joint Resolves to workstations a year ago, according to Paul Warren, a spokesman for Malcon. The system costs \$2,000/nm and includes five terminals, one

Congressman sues over alleged misuse of computerized list

as har filed a lawauit in which he claims a Wast ington, D.C.-based political group made unauthorized use of a computerized mailing list to benefilds opponent in a recent U.S. senatorial primar election.

mailing list was used by the Committee and the Survival of a Pree Congress (CSPC), a so-caller New Right" political action committee, to help Paul's opponeest, U.S. Rep. Pali Gramm (O-Tex as). Gramm defeated Paul in a May 5 Republicaprimary. Paul filled the suit in the state district court here several days before the primary election.

The suit charged that a computerized letter

contributors contained names that were of from an in-house mailing list legs in a political organization. The letter urg in supporters to back Gramm.

The mailing list contains about 100,000 name which are stored in a microcomputer and all kept on hard copy, according to campaign mans or Nadia Heyes. She claimed the use of the list the CSPC was discovered because the list w "salted" with deliberately misspelled names as

ct breaches.
"There's no doubt in my mind the list was so len," Reyes said. She said only a few people, is te the list. The organization is try etermine how the list was obtained is ashington group — if it was — and w

anyone else has access to the list, she said.

Beyes said Paul had been compiling the list since 1976 and that the names were instrumental in raining more than \$1 million in contributions during the recent campaign. Getard Mildner, a Denistred member exists the list "see of the contributions".

The CSPC did not return telephone calls fr Computerworld. But CSPC Director Paul W rich, according to published reports, deside to wrongdoing by his organization. He said the his group used for its March 30 mailing was

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Speaker pegs security lack to user apathy

Micros not just a craze, keynote speaker tells meet







Japan, U.S. industry groups reach accord on high-tech trade

Security seen as managerial, not technical, issue



By Susan Makesas Cir Sust

TORONTO — One in four DP managers will experience a fire at his installation this year. One in two will face some kind of a security incident. So warned security incident. So warned security incident. Danny Bowers, president of Boneydule Computer Management Skills, Inc. of Downaview. Ont., during a sease-it tritled "Security lamage."

gave here last month during the nadian Data Processing Manage Association (DPMA) Conference.

association (DPMA) Conference.

If those statistics weren't
incouraging enough, Bowers
old his audience of approxinately 50 DP professionals
hat most security incidents
po undetected; of those that
tree detected, only one in
0,000 cases is ever prosecut
d. The reason out, Bosses
said, is that the whole issue
side, is that the whole issue
of security. The way is:

ing the Camit he may have made a mistake, h faragement said.

actes of security take a number of forms, according to Bosens. Bunan error or humanises accounts for rough 50% of security problem "and atthough the its amount of statistics exist this area, these problem courty marks are often to result of poor DP procedure carelessmens on the part soloyers, lack of innoving security and provided the process of the part soloyers, lack of innoving a real lack of controls. Bowers site

lem, is system design or programming flaws. These flaws are due to poor planning, lack of proper control systems or security design and/or lack of documentation.

of documentation.
"Disgrantled and dishonest employees account for another 15% of accurity incidents," Bowers said.
"People think of computer crime as a victimiess crime... It becomes a same or a challense, and so few

simply a case of mallicious vandalism Environmental hazards make use remaining 5% of all securit istas, Bowers said. This category is duden fire, water damage, electric robbens, lightnaing, burglary an owing accidents. Fire, according is owers, poses the biggest threat the said of the said of

legs; they walk right out of lings."

What's a DP manager to do not a technical issue," Be

streamed. "It's a management insue."
The security-consections DP profesional must focus on security. To dewith the human eliment, he must seup tight procedures, controls astraining. To manage effectively of weak links in the system's design an programming, he should impose sitstandards, set up programming an standards, set up programming an

the system constantly.

The risk posed by diagrunted dishonest employee can be a drassed with passwords, access co trol and employee history check Bowers continued. And finally, co tingency plans, insurance and bac up sites for both programs and dar

nviroumental risks, Bowers said. Bower advised that management lee establish a corporate security olicy, initiate awareness programs ush for regular audits, bring in exerts and prepare a strategy. The less of security are great, but look at he notestial looses." Rowers urses

his sudience. Pamous last words heard most of ten by Bowers include: "It can happen to me; 'We'rs too busy dding what needs to be done; and 'There isn't enough money left in the budget," he said, adding, "Management usually waits till the 11th hour to look at security, Sometimes the 11th



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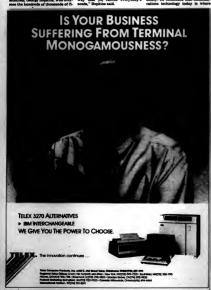


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Bank exec urges integrated information utility plan







N.Y. agency begins statewide net for issuing benefits Full operation estimated to save 57 counties up to \$7 million annually in DP expenses

By David Olmos

w start
ALBANY, N.Y. — The New York
tate Social Services Department has
spin the first phase of a statewide
imputer system for processing pubtassistance checks, food stamps
tassistance checks, food stamps

assistance checks, food stamps of other human nervices. The Benefit Issuance and Control intern (Bics) began operating the shall be the since been expanded on a pibusis to four other upstate common. When fully operational, the shall be sha

State plane for Bio involve two-ppects, according to John Chil-rows and the Chil-pects according to John Chil-rows and the Children of the Chil-rows and the Children of the Children of the theory Centry. That you is built heavy Centry. The Children of another loca-n. A less system was ineasted last. The Cheming at smaller local versal surrounding counties in a sal-llen of the Children of the Children of the theory was a support to the children of the last way system supports the children of the manufacture of the Children of the Children of the theory was a support to the children of the Children of the theory was a support to the children of the Children of the Children of the theory was a support to the children of the Children of





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AUSTRALIA

MELROURNE — According to a microcomputer marketing survey soon to be released here, work-of-mouth information exchanged during more than anything decision more than any thing decision more than any thing decision more than any thing decision microscopies and the second microscopies

STDNET — Australia's Amatili
Ltd. has teamed up with New York's
Chemical Bank to produce an electropic funds transfer (ET) system
for the government-owned Commow
wealth Banking Corp. here. Based on
Tandens Conputers, Inc.'s Nonzier
TXF processors, the ET system is
scheduled to be operational this year
and will resportedly incorporate ieduled to be operation on a fail of sale (POS) features. Amatil lows two other firms here, Westand the ANZ Bank in their receiptmentations of POS banking net-

JAPAN

AD/CAM) systems installed in Ja-na has grown exponentially each ear since 1980, according to a re-mainter report from the Ja-an Management Association. The ggest CAD/CAM users include itemabilis manufacturers electric

TOKTO — Acti Corp. has developed an operating system for use on Toshiba Corp. Is MSX microcomputer. Called MSX JOS, its read to function like Microsoft, the 's MS-DOR. In Japan, there are '!! MSX-compatible microcomputers on the market, with an installed base of apprentimately metalled base of apprentimately

TORYO — Japan's Ministry of Post and Telecommunications has re-leased a status report on the home in-formation network to be implement formation network to be implement future. The report maintained that \$100mm Bun, "all is called, will last as the backbone of the network, which will be based on rountial calles and twisted-pair cables assembled in a home true, architecture, depochine con-tract and the called and the called and home true architecture, depochinecture, depochinecture, separate called and the called and the called and the home of the architecture, depochinecture, depochinecture, separate called and the second and the called and

Sources.

TOKYO — Toshibe Corp. has re-leased two additional versions of its office system. Toshec Model 5 and Toshec System 285 can reportedly be configured in multi-workstation envi-

company.

TORTO — Missahishi Esectric
Corp. has released the OA Workstetion, aimed at the office automation
market. The Missahishi product isclusted to the owner of the owner of the owner
core and CAT unit that displays up to
600 Japanese character. It runs is the
Japanese version of Digital Benearch,
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THE NETHERLANDS

AMSTERDAM — 8PL Insight will organize a series of group excursions to Europe, the U.S. and Japan to study worldwide development in artificial intelligence and fifth-generation products. The research consortium was recently organized by Systems Programmers Led. International, with offices in London and

. WEST GERMANY

STUTTGART — IBM's sales strat-egies are under fire again here. While the European Economic Commission

NEWS

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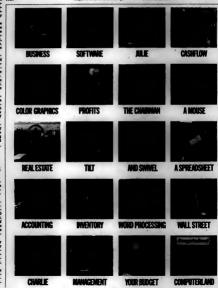
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French woes akin to U.S. in drafting computer crime law

Growth cited in privacy laws



Brazilian bank lauded for its info support center



**

to a presentation last year about the information support center at Beanco Lar Brandleiro SA, which is the Bradian subsidiary of Chance Manhattan Beank NA, a Chane vice-president our fit to prenounce it "Chane's best information center in the Western Beamaphore."

That was quite a compliment for the staff at Banco Lar, considering the constraints under which it works, New hardware and notware from the U.S. is extremely difficult to obtain in Brazili. All acquisitions must be approved by the governmust be approved by the government, a process that can consuto a year and a half, accord Paulo Cesar Vergara Lopes, a v rector at Bance Ler and admi-

reason cases we great capea, a very record of Stances Law and administrative capea, which is the capea of the

ference for Information Builders, Inc.'s Focus product, held here recently.

The information support contex at

mee Ler is actually 21 coperate mature information centers, the magers explained. The mini-cent re are set up under the control or departments that use them, with atral support and consulting preded by a saff of six in the informa-

Construction of all land

eliminate duplication of effort in various departments and to contrate on training users in these to that are most useful in their we Lopes explained. One person is a sen in each mini-center to be reasible for activities there and to se as the main contact to the infor-

tion respect center.

In addition, the information aug port center "is the bridge between the same and the corporate data center," Toless said. Users cannot access production data without first filing, request with the information support center. The support center staff de fines the fields that are needed free.

the central data base and copies them to a disk that is accessible from the sers' virtual machines. "The reasons [for doing this] are

scurity and control," Lopes exsisted. "We know who has access to whose virtual machines." Banco Ler has three BM 4341 pro-

minor late least treet life (44) as comment or of which is deficiented or comment of the late of the l

The center now supports 340 were, a number that is growing registly, Tolosa said. New user deparaments are targeted by the laformation support conter and give a text to determine which users have the most spitiated for developing an polycations. New users undergo three week training course that one as introduction to the company Department of the company of the content of the company of the content of the co

"Before the course starts, the cosultant meets with the managers the area to find out problems the need to be solved," Tolons said. "I generally try to solve [these prolems] in the third course as an eascies. That gets the near quite exci-

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China launches its first telecommunications satellite

Despite major space technology advances, China will remain dependent on West







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Urisa meet set for August

"SEATTLE — Users in local, regional and state government, vando and other professionals will address "The Changing Role of Computers I Public Agencies" at the Urban an Regional Information Systems Americation's (Urban 22nd annual confessional Confessio

at the Sestile Sherason Hotel. Issues and accomplishments will be highlighted in the first sessions on Monday, Aing 12, and Wodnesday, Aug. 16. These sessions will be followed each day by concurrent sessions on specific interest areas. Concurrent sessions will include submitted and invited paper sesfeaturing leaders from the special interest fields. A total of 110 person will participate in panels or paper presentations.

Special-interest areas include mi crus, geoprocessing, land records data processing, public works, transportation, public administration, regional agencies and natural resource and all vironmental assessment.

od environmental assessment. Registration costs \$230 for memers and \$270 for nonmembers, if aid by June 29. Registration costs fue that date are \$265 and \$315, repectively. More information is available from Peirce Eichelberger, Urisa, site 300. 1340 Old Chain Bridges site 300. 1340 Old Chain Bridges site 300. 1340 Old Chain Bridges

Software seen key to integration of computers in manufacturing

Librari Warm

NEW YORK — The stry to the six possibil integration of computers is the manufacturing process is not it avoing the right hardware, according to Michael J. Kelly, manager of IBM danufacturing Technology Cente Computer-integrated manufacturing is a big software problem; said. "A'ts trying to tie all these [pr

Speaking at the American Associa on for the Advancement of Sci oc's annual conference here in what happens when we are making 0,000 widgets a day and that serial number [on each widget] has to be dentified as It comes off the [assemble line It's a barriell on First man.]

bly] line. It's a terrific software problem."

But the problem is solvable, Kelly said, pointing to the airline industry as a model for its integration of computers running appropriate software. Handling "sute and bolts or baggage

pulme different algorithms," had, "but something has to move this point to that point." Computer-integrated manufactur, is becoming a necessity, accord to Kelly, because manufacturin "no longer a smolyestack industrated U.S. R's as much an information U.S. R's as much an information."

ion industry."
Most manufacturers dook the first
tep in factory automation — mechainstant — long ago, he said, and
instant — long ago, he said, and
ingo in the process toward fully
untomated manufacturing. The next
tap to full computer-integrated manfacturing, he explained, is to group
iniliar manufacturing processes totoker in cells, each monitored by
omputer, then to bring computer
outer to the assembly line and
control to the assembly line and

e interfere melite

The interless problem?

The adoption of computer-interprated misurfacturing will also notes interested the interface problem. The adoption of the interface problem." a sit allow the interface problem." a sit allow the interface problem. In a situation between the factory's assert by line and front orifice. The interface problem, he said, arise be some of the difference short-term points of the first's various department or example, wants the factory's maintain an instinum inventory, but per production department want meanth abeliading, something the

As factories more from simple mechanization to the grouping of processes in manufacturing cells, they will need to link the computers controlling sech cell in networks. Relay noted. The hig concern at this stage, he added, will be to avoid created to be added to the computers are interconnected in a jumble. Another boundary that will need to fall, he said, is the separation between computer-aided design and



'His resume lists him as an acc



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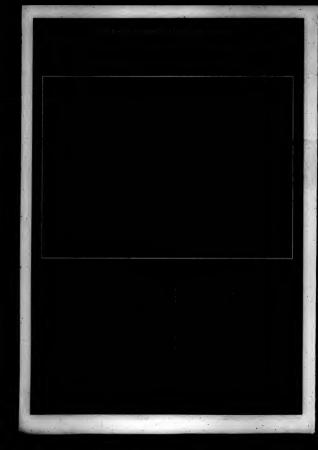
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VIEWPOINT

Whither natural language?



But dealing with the non ral, tough as it may be, in l ing high-tech computer did

Word processing development: a blithe prediction







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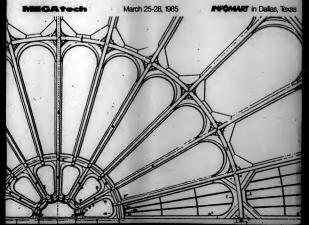
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hat's wrong."
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hile a fourth-generation language
ay reduce coding time, it won't ne-nearily reduce project time. As an
tample, he pointed to a large appli-tion that was developed in Pows

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South Carolina no longer a state of information confusion

South Carolina is bringing order to its information resources through a flee year project that features construction of an integrated statewide "backbone" microwave network for voice, data and video communications.

By Donald A. Marchand and John C. Kresslein

In 1981, the state of South Carolina was confronted with a study report of major deficiencies in the state's management of telecommunications, data processing and office systems.

Management of those systems was frag-

Statewide and long-term planning for inf
mation and communications technologies did

Inventory and cost accounting techniques

■ Procurement practices were obsolete.

series for technical employees were outdated.

State agencies were receiving insufficient

Of particular interest was the finding that, of the average, the state was spending 6% of its annual operating budget for data processing, office systems and telecommunications. Person nel and operating expenditures in support of





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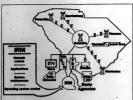
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officials in preparing their plane, and planeting office staff made themselves available as needed, During this planning process, the office encouraged agencies to take not only a "strategie" approach to planning, but an "integrated strategie" approach. Agencies were encouraged not to submit three couraged not to submit the

cials were encouraged to define their applications needs in order to project which particular information modes they would require over the next three

Lightle of the Office of tM credits the planning annual and the participative pproach taken by the planing office in its developent with the result that of 10 agencies expected to more than 100 have done The goal of the state re mains a unified communic tions system. The prelimi-

nary plan reflects that go calling for: Microwave and Inst tional Television Pixed S

twork.

8 Office automation.

8 Technology standards
d policies.

an Integrated network to car ry voice, data, video and radio transmissions simultaneously. The system will serve all state agencies. The entire system will consist of 37 microwave towers, 18 of which are already in place as and are now used for oneway transmission and broad cast by South Carolina Educational Television (SCETV). million, but is expected to save the state more than \$100 million over the next 2 years. Legislative authorization for the project require the consent of the Budget and Control Board for funding and the support of the Joint Bond Review Committee.

t Bond Review Commitof the General Assembly, he state did not set out ally to establish its own communications system,

The shared communications network will allow economical transnisions among the state's 16 major computer centers.

L

cont-errective autorisative with the goal of controll its telecommunications or For this reason, the state contracted the Buford-Ge Associates, inc., telecommunications consultants, conduct a feasibility stude for a statewide, centrally managed (by GGS) integr ed (voice, data, video and die) communications network that could be either state-owned or leased.

consibility of building a py can or leasing a system for one of the common carriers on the state. Confronted with these alternatives, official of DGS and the Office of IB solicited bids from private rendors to determine wheter private industry could provide the microwave con munications services they work to the control of th

in the meantime, DGS retained the services of the South Carolina law firm of McNair, Glenn, Konduros, Corley, Singletary, Porter and Dibble to help secure the necessary legal and regulatory approval. The Private Radio Bureau of the Peder Communications Commissions with the necessary licens susthersizing final approval increases untertribing final approval

Badio Bureau of the Peder Communications Commission issued the necessary local for the system Dec: 19, 18 The project, to be complete in 1886, is moving forward in two phases.

Phase 1 will use the exi-

by SUETV for transmitting clusarious and programming within cities. The goal is renduce the dependency on tracity, cable systems currently, cable systems currently, cable systems currently, cable systems currently. The systems have been it place in Georgetown, Lake City and York, Plans are provide additional ITFS, it the state will continue to rely on voice/data lines leased from local phone or

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The shared communications retThe shared communications among
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Technical standards and policies for Information technology were designed to satisfy the legislative mandate in the procurement code. These standards and policies in addition to the procurement review process enable the Division of IRM to steer agencies toward compliance with strategic directions for information strategic direction for information

Phase 2: Strategic direction

planning, then Phase 2 represents an ongoing effort to implement that plan for the purpose of establishing a strategic direction for the state in compliance with the 1981 Consolidated Procurement Code and Appro-



Figure 3. Statewide communications network

printion Act. During the period from nall 1981 to the present, the Office of RM continued its contractual relaionship with the University of footh Carolina Institute of Informaion Management to help address the nanagement issues that have char-

acterised policy implementation.

Among the major events and opportunities for study:

man 18-menth plot study within
DGS of the productivity benefits

through the introduction of office automation.

B An assessment of information

technology needs and management concerns among officials in line agencies.

gency planning requirements.

8 A study of the role of training in implementing office automation statewide and the role central state government should assume with re-

the three-year plans for information technology to the Office of IRM in September 1982, and DGS moved for ward with plans for the microwave network and related projects outlined in the preliminary state plan. The Information Technology Plannion Office released technical staning Office released technical stan-

m dards for office automation in of cember 1982, and a revised star plan for information technolog

The Procurement Code and the Appropriations Act, which required DGS to develop a state plan for technology, provided the impetus for two major projects during this period: the Office Productivity and Automation Project and the Statewide Needs AsThe office automation project, which began in August 1981 as a coint undertaking involving the Uni versity of South Carolina's Institute of Information Management and

and extest of the productivity ber fits to be achieved through the use office sutomation. This study was comprehensive in terms of the me odology adopted to design, implement and evaluate the project.

mented in two phases. The first share from 1981-1985 included hose activities associated with ide ifying the pilot sites, initiating the secessary procurement proceedings raining, implementation and evalution. The key events and duties for share it:

a July 1981 — DGS Director speland appoints a core group lown as the State Office Automain Pilot Study strategy group to

direct the pilot study.

8 September 1981 — DGS contracts with the university institute to set as a commitment for the strain

to act as a consultant for the strate y group. As part of its responsibility, the institute was eaked to conduct a six-month study that would help DGS identify sites that offere the greatest potential for improving productivity.

a Pairmary 1952 — The Institution submits the Office Systems Pilot Study Preliminary Report to DGS recommending prospective target sites and potential cost savings through the introduction of office

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IN DEPTH/IRM IN SOUTH CAROLINA

If Merch 1862 — The study's director outlines responsibilities and assigns staff to seven target area work groups, one for each o seven target areas identifies in the institute's report. The objectives were to determine whether the productivity or portunities outlined in the réport were schlevablé and develop a more agency-specific plan based on what the work groups considered rea-

istic productivity opports ties.

March 1982 — Base on the functional requirements to satisfy each tararea, a procurement group was organized to identify specifications of the stugroup's office automation writem end then to procure

specifications of the study group's office automation system and then to procure system.

B. March 1982 — The project director organizes an Egonomics Task Force to de-

velop plans and programs related to implementation, training, physical planning and personnel insues.

Some 1982 — The Ergs nomics Task Force releases preliminary implementation

tion, physical site preparation and technical support.

If June 1982 — Based of the recommendations of the Ergonomics Task Force report, a formal office automation training program is instituted for all participants

in the plot study.

If Springer 1852 — All the description of the state of the stat

■ September 1982 — A user group is organized to act as the ombudaman to channel user perceptions, needs and concerns to agency management.

office automation pilot study to date is issued by the institute to DGS.

Phase II, which began Au-

ued development of sophisticated data processing applications at the pilot sites and saw the automation of other sections within DGS and office automation assistance to other state agencies:

To date, office automation systems have been installed at four sites within the Capitol Complex including Wang Laboratories, Inc. processors initially designed for the Legislative Printing System,

but to which office automation features have since beraded. The Legislative Services Group, an arm of the state legislative, uses two Wang VS 100 processors, which support more than 200 terminals. The terminals, which have been in place since Pebruary, 1982, are distributed among House and Senate. The group ininstruction to legislators and also user support as needed. The system prepares legislative journals, calendars, bith and amendments and tracks all bith and amendments through the legislative process. Members have direct access to word processleg, data processing and key word search, which provides up-to-date information on war bill and access to the

director of the Budget as Control Board, including sites in the Capital Comp The system is currently of primarily for word proce ing.

Statewide assessment

During this period, the

wide study, on behalf of DGs und the Office of IEM, of gency aseds and concerns with respect to information echnology. The outcome was a series of management stategies for managing and using information technolgy at the agency level. Among the recommenda-

> That a separate Diviof Information Resource



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What we is a failure to c



One of the principal concerns was the potential lack of compliance with office automation standards as agencies continued to procure personal computers in the absence of oversight from central state government.

have here nmunicate.

Word processors can't always communicate with other word processors.

Internal mail networks can't often communicate with other outside networks.

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People can't always communicate with people.

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State agencies are beginning to recognize the utility of improved management of their own information resources. In the past 18 months, the institute has resources. In one pass to months, the transvice was been involved in consulting with four agencies and institutions in state government whose managers solicited assistance in improving the management of their information resources.

es are in pro



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Unlike the federal government, the state of South Carolina has not mandated information resource management. Instead, the state has used selective incentives to move in that direction. Clearly, agencies are moving toward IRM.

selective incentives to move direction:

If The oversight authorit,
ed in the state procurement.

If the communications at
for office automation.

If the master plan to whi
cles contributed.

If the IRM guide for ages



Megatek introduces graphics system

CCI pits supermini against DEC, DG

Big firms follow alternative route to fault tolerance

Order-execution system saves stockbrokers from playing 'telephone tag' with customers

Travelers improves system response time with DDP

By James Connell

HARTPORD, Conn. — Wish 50 distributed data processing system in operation and another 250 on the way, the Travelers Corp. here alound distributed processing hardrant instruction.

puting power where the people are It's quite amazing when you visit: 0 field office and the people talk about a response time and dependability; e said Joseph Brophy, senior vice-pres ident for data processing at Travel

Pield office personnel enjoy a 99.7% availability rate with the 8140s and 8150s under the 8100's DPCX operating system compared

with a 86% availability rate with the host computers. The 8100 using IBM's Systems Network Architecture (SNA) operate as stand-slone computers, each serving 20 to 30 terminals; as controllers giving terminals across to the host computers in Connecticut and Geo-

s. gia; and as word processing and ofd fice automation systems. it Remote terminals, including an into the 8100s through dedicated it and dial-ups. About 80% of those; sonal computers are IBM Person Computers and IBM Personal O puter XTs, with a variety of mai including systems from Wang L

oratories, Inc., Digital Equipme Corp. and Apple Computer, Inc., cos posing the remaining 20%. The 8100s generally are located resional nodes and allow processing

Most popular uso

Brophy said the most popular us is for processing claim application. Other common uses are premium a counting, billing and word process

"We give our agents, customer and field personnel all the advantages that distributed processing ha

es network.
"Even though the system dece alizes many computing operation can manage the entire operation intain all programs, make operanal changes with minimal operator instance and provide quick help of support to our users via our cenil communications executive facili-

ties," he said.

He reported that the distribute system can save an agent sever days in preparing price quotes an proposals for commercial customer He also estimated that the increase availability of the \$100e compares

each week.

Brophy said typical uses incluste
the Casualty-Property Commercia
Lines department's issuance of pocises and billing from fisiol offices; to
Client Access Risk Manageme
Analysis program, providing on
mercial clients with access to
outsterized information about the
cases; stand-clone processing
workers' compensation claims
field offices; and a pilot project fi-

als. WP and electronic mail.

Brophy said that Travelers, which
as \$32 billion in assets, will have
50 5100 systems operational by the

Ridge Computers announces 32-bit, single-user workstation

nounced a single-user, 32-bit wor station said to execute up to eigi million instructions per second at 1.5 million Whetatone operations p

1.5 million Whetatone operations per second. The Ridge 32S, targeted to ORMs, end users, systems houses and software development firms, is designed

an- Corp. VAX-11/780 supermini rk- puters, without the need for apght electrical power or air conditioni and The workstation reportedly

The workstation reportedly is software-compatible with the Bidge 32C, the company's one- to four-user personal mainframe.

The Ridge 32S can be placed under

a desk or arranged as a stand-alone mit. It uses a reduced instruction set computer architecture and provides high-resolution graphics that enable designers and engineers to see as modify design results, according to

modify design results, according to the vendors wirtual memory, fou stage pipelined architecture and Unix-based ROS 3.1 operating systems.

and graphics applications.

Ridge's EOS 3.1 in derived from
Bell Laboratories' System V and the
University of California at Berkeley
4.3 Unix operating systems. Languages supported include Fortran 77

tem is stid to offer 4G bytes of ad dressable code and data, 1M to 4l bytes of memory, demand-paged virtual memory with 4K-byte pages an a 375 nacc memory-cycle time.

h includes a monochrome raste graphics terminal with 1024- by 800 pixel resolution, or a color display with 1024- by 768-pixel resolution. A basic configuration, priced a \$36,400, includes a processor with 1M byte of main memory, a 78M-byte

d printer/plotter port and a li printer port. It is available 90 days after rece of order, according to the company Ridge Computers is located

Ridge Computers is located 2451 Mission College Bivd., Sc Clara, Calif. 95054.



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Assess H-San Francisco	MIS		THE			
September 6-New York City	GOM/O		TELEPHINE! 1			
October 18-Boston	19927	m	on			
November 8-Dallas December 6-Adams	DNO, Den't register me n more information on electr	ical cover COOMS		-		

Lisp unit allows independent, concurrent processing

LOS ANGELES — Liag Machine, inc. (LMI) has announced a two-user Lisp machine designed to silow each user to have his own processor, artificial intelligence keyboard and display station

while sharing other resources.

The 2X2 includes two independent, concurrently excuting Lisp 35-bit virtual microcode processors. The system was designed around the 37.5M byte/sec multiprocessor Texas Instruments, inc. Nu Bas architecture. A

TURNKEYS SYSTEMS

CHASE DEC

Chase Decision Sy has announced a to forest uses. The system to combine mainfrance

sonal Computer XT/370.

The Horizon/370 was de algoed to provide users with the equivalent of an IBM 377 mainframe. It is said to allow techniques such as regression analysis, ischeding notine arrivo-stage and pooles.

Intended for the professional forecaster, the system provides an integrated stand-alone finally also environment with mainframe links, according to Chase, as IBM value-added dealer for the XT/S70. It contains Chase's Xsim applications software, Lotus Development Corp's: 1–5–8 and IBM's PC

It was designed to allow the user to access corporate data from his own main frame and from third-party data suppliers. It is priced a \$50,000.

data suppliers. It is priced a \$50,000. Chass Decision System 1900. Managhungths. Aug

TERMINALS

CONTROL CONCEPTS CORP. CC-8378

Control Concepts

is compatible with IBM's 3270 terminal. The CC-3278 is an Ascii terminal with a 3270 board layout that will reportedly

to a protocol converter.
The terminal costs \$996.
Control Concepts, P.O.

Control Concepts, P.O. 67, Manageas, Va. \$2100. space per user is provided and the unit supports LMI? Zetalisp-Plus environment accreting to the vendor. Standard internal memory

according to the vendor.

Standard internal memory

2M bytes. Memory can be expanded in 2M-byte increments and segmented in tween the processors. Share resources include a 4702

d, and support for Intel Corp.

Maltibus architecture. To
the latter feature allows users a
dd third-party peripheral
y An optional Xeros Corp. Bi
e crust-Il interface is availab

for communications with other systems.

The company said the 2X is an extension of the dust liam (REG) 1. I am (REG) 1.

the single-user, rack-mountable to LMI Lambdas. Those single-user machines can be field-th-upgraded to the 2X2 for the 2A0 000

The 2X2 was designed for commercial and research applications and is scheduled for July 1 deliveries.

th the 2X2's \$110,000 price ble breaks down to \$55,000 pe

A spokemen added the purchase price is 20% below the typical price of a singleor mer, fully configured Lies



SYSTEMS A PERIPHERALS

TERMINALS ton page 67

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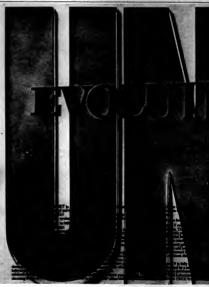
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ets \$15,000, or \$10,000 if pur-ased with the plotter, while the tomatic paper cutters cost \$25,000 r the 24-in. and \$35,000 for the 36-

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master Control Blooks II Alsa Energy Systems, Inc. has in-corporated into its line of power sup-ply conditioners a subd-state elec-tronic control systems as and state elec-tronic control systems and the control by a the feature offers users a bid-ctional bypass capability without in-terruption of critical load, a provi-cional bypass capability without in-terruption of critical load, a provi-ous control of the control of the con-position of the control of the con-trol of th



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hased on the firm's case integration chips.
The speech recognis
SR-10, reportedly requires h word once for fa and features a 125-word.
The product provides it crete voice recognition

uch as beeps, chimes and torage of 256K bytes provides han 65 seconds of response du t 32K byte/sec. The AB-10 us

ation coding technique. The NEC AR-10 and SR-10 are

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833 is priced at \$850; the tw el version costs \$1,060. ICS Electronics, 2185 Old O load, San Jose, Calif. 95131.

is (MLSI-BA11-800-P/R)

untilased from page 70

has 23-bit addressing on all back plane slots (combinations of up to eight quad-size boards or 16 dual-size boards can be installed, frost pane writches and indicators for de on run and halt functions, a switch as lectable line time clock, removable bus terminator and a switching pow-

mid. The price in \$1,750.

**** price is \$1,700.

FAULT tom page 65

This is the approach that comp
nies like IBM, DEC and NCR are ta
ing with their high-end systems, no
of Peter Lowber, an analyst with ti

noncon-tessor ranses (prosp. One reason the three have adde fault-tolerant capabilities to esionize systems is that doing so is easy as fairly baxxpensive. The current trees in system design is to boost perfor marce by using multiple CPUs that function so no big processor. Redud dancy is an aimost three side benefit of that multiprocessing architecture noted Steve Smith, a securities and yet; with Talles Webber Mitchel yet; with Talles Webber Mitchel

Hutchins, Inc. in New York.

Of the three vendors, only NCI
has formally stated its plans to offer
systems with some degree of faul
tolerance (DW, May 7). The NCE ap
proach, called the incremental Archi
tecture, consists of three hardware
products, a software utility and as

MDB Systems, 1995 M. Balanta St a 5508, Orange, Calif. 92917.

TAU-TRON, INC.

Model 5166 error rate test out

lei 5105 error rate test set, a pore instrument for measurements systems operating at the DSI similation rate.

anced version of the firm's VE sating system. Steve P. Barnhar T's director of VEX product ma ag, said the architecture lets us store critical applications in me NCR high-end mainframes. arnhart added that some Je

Barnhart added that some Intures of the recently introduced Notortware are peripheral pooling as "instantready" capabilities, whice allow-toosely coupled CPUs to be configured automatically around system failure, reportedly without loaing data.

Both IBM and DBC — neither of which is making an overst attempt is garner a niche in the full-toleran market — have announced perduct that offer users the option of high re

ability.

DEC announced its Vaxeluster in a go as a shared mass-storage sture that offers VAX users a mod ar expansion path [CW, May 2 863]. But a spokeswoman noted tha axcluster also gives users the cape

ERIPHERALS

nas the capacity to test automatis protection switches.

The 510% transmitter and receiver are housed together and all control and connections are located of the unit's front panel, according

> A self-test feature is also included, vendor said.

perform end to end tests on digital dio, fiber-optic and T-carrier sysms.

It is said to be compatible with a T1 bit-error test sets. The 5105 come with a power cord, protective cover instruction manual and spare funths vention raid.

to instruction manual and spare fuse the vendor said.

d. The 5105 is priced at \$1,900, the vendor said.

he shillity Cheimsford, Must. 01834.

blications IBM are not planning an all-out at configuration that the place. The Yankon Group's Lowber

ch'à a way that asplace. The Yankee Group's Lower
ignie VAZ syntems. anothe that nether Bill, NCR nor I's
flash't-olerant cais propered to train its askes and me
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tolerant market carved out by Tandem and Sentratis' Lowber noted that there may be some overlapping, but for the most part, highly reliable system configurations offered by IBM, DBC and NCR do not compete directly with traditional fault-tolerant vendors.

South added that traditional fault tolerant vendors are often chosen; televation subsystems within a large corporation. For example, a ban may choose a fault-tolerant system televate a network of automated tellemachines, or a factory may use fault-tolerant system to manage a rebotics accellention.

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SYSTEMS & DEDIGUEDALS

MERLIN

while building or changing the corresponding data base. The data base can be stored in the system's ammory or archived in a host processor connected to the Meriin 9200 via Ether-

used as a local-tank processor. This device permits users to run up to sight concurrent focal tanks. Using Magneto's Local Tank Language, users can reportedly perform a warbeyof applications, including conley and controlling peripheral Indiage to the local computer of data bases and to the local computer of data bases of the local computer of data bases while the computer of the language of the volley continuous event applications,

act of graphics boards that incorporate tailored, very large-scale integration technology. The vendor saithe system is capable of performin 75,000 three-dimensional, 16-bit vectors per second.

company said is its first implementation of an antializating display technology that the firm is calling pixel phasing. According to the vendor, the technique eliminates the jagged lines that appear on traditional raster displays.

tre mapays.

The Mertin 9200 offers virtual acreen addressability of 3,972 by 2,304 pixels on a 19-in, 60Hz inter-laced monitor. It provides from 64 to 4,095 simultaneously displayable colors from a paleste of 16.7 million colors from a paleste of 16.7 million colors.

ospendo on the sale of the frame burer, the vendor said.

Communications capabilities of fered by the Meriis 9200 reportedly support a variety of distributed processing environments. Support includes an IS-232 anyuchronous taseface for transfer rates ranging from 500 to 19.2K bit/sec, an optional sup-

ort for Ethernet or an IS-422 into cor, the vender said.

The standard system configur on includes a desktop monition for an IS-404, rack-mountable chis or desk-side pedestal, 512K byt (data base memory; 256K bytes cal-task memory; three IS-232 i rfaces, a Negatek keyboord into tor; and support for the Intel Mul and a local-task expansion i provides an additional IM byte tral-task memory, the vendor

anid.

The vendor said the Merlin 920 can operate with a variety of one puter systems, but is typically uses with scientific-oriented superminal computers, such as those manufac

uter-aided design, architectural deign and molecular modeling. A basic system capable of offering p to 64 colors costs \$35,000. A typial configuration capable of using up 256 colors costs \$45,000. The sysmus will be available in September. Reguste is located at 1906 Scram

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CCI ton page 60

programs, the vendor said.

According to CX, the 6/82 fee
tures 4M or 8M bytes of interna
memory and a cache memory of 166
bytes for instructions and 16K byte
for data. The 1/0 bus is a Motoroli
inc. Versabus with 25 slota, it uses
proprietary architecture, accordin
to the company.

Disk storage capacity ranges from 160M bytes to 825M bytes using fixed-media drives. The system also includes 300M bytes of removablemedia storage. Tape subsystem capacity is 46M bytes at 1,500 bit/in. and 92M bytes at 3,200 bit/in.

Network interfaces include Arsenet and Ethernet. Interfaces are lee included to support IBM 3276 and 2780/2780 CRT terminals.

According to the company, a typical 64-user configuration will cos about \$230,000 for SM bytes of internal memory, a disk controller, four 160M-byte disk drives, a 9-track tap drive and 64 ports. OCI Power Turminal 4605 terminals for the cypter cost about \$2,196 each.

miniconsparie will be available new users and as a processor file upgrade for the §/30 in Supramber. A company positionant said the upgrade for the §/30 in Supramber at Contract and the contract appears in the \$/50 will feature with the \$/50 will feature with the \$/50 will feature with \$/50 will feature

A typical 24-user configuration is specied to cost about \$70,000 for 6 bytes of memory, a 70M-byte disk ive, a cartridge tape system and 24

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MICROCOMPUTERS



Integrated tools: Approaches differ

Several DBMS types evolving Vendors offering widely varying products

HP unveils low-cost laser printer

Haves moves into new product arena with DBMS for IBM Personal Computer

Select offers content-based document locator for micros





A Software Implementation within Your Product Hardware



Samna joins integrated software market

Epson extends its printer product line

TORRANCE, Calif. — Ep- panded its printer line with in America, Inc. has ex- JX-80. a seven-color. 160



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oid Jamison Carlyle recommends the Diablo 630 Series.



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The new 5300 family of printers from Teletype Corporation represents an exceptional value. The entire family combines our traditional reliability with a 200 cps speed that is ideal for business applica-tions. You can choose a keyboard or auxiliary printer, both of which are available in 15-inch tabletop and 9½-inch compact sizes.

From the moment you take a 5300 out of the box and plug it into your

system, you'll be amazed at how easy it is to operate. To begin with, you can downline load or simply push a button on the printer's control panel to set options. And just push another button to select an alternate option set for a different system. A 4-character LCD on the control panel provides all of the status indicators you need.

The 5300 is available with a built in 300/1200 baud modern that saves desk space and makes it possible for the 5300 to do all dialing and logon functions. So you can access a CPU or timesharing network by simply depressing a key on the detached keyboard.

For printing versatility, the 5300 is hard to beat. It features graphics capabilities as well as emphasized, expanded and compressed printing. And when used as an auxiliary printer, the 5300 is well-suited for use with most ANSI display-based terminals such as the Teletype 5410 and 5420.

You'll also appreciate the forms handling of the 5300. It is available with adjustable push or pull tractors; a roll paper holder, a supply rack and an accumulator.

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COMPUTER INDUSTRY



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SI reenters software market: firm mirrors competitors' style

Anacomp's problems cripple industry



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IBM's Rodgers delineates market strategy at ICCA Targeting future product development, sales at specific end users

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ISRAEL som page 87

BOEING COMPUTER SERVICES



Codex faces possible eviction from headquarters site

y Edward When W Staff

CANTON, Mass. — Codex Corp may be evicted from its future work headquarters here, a \$20 million structure already one-third finished if Massachusetts Governor Michae Dukaikis goss ahead with his previous commitments to take the 55-acm star, be assigned donesin

The Prowse Parm, a sprawling site in a rapidly developing area about 30 miles from Boston, was purchased by Codes for 31 million in 1977. To quell the complaints of local environmentalists, Coder, a manufacture of data communications equipment and a subsidiary of Motorola, Inc., prom-

ised to ineep SUN of the property functioning as a farm.

The state-run Metropolitan District Commission (MDC), however last year sued Codes, claiming the the firm's development was exceed ing the limits of its 11-acre boundar, and was posing a threat to an adjoin

the firm's development was exceeding the limits of its 11-acre boundar, and was posting a threat to an adjoing park. The Massachusetts Spreme Judicial Court upheld the MDC's suit May 22, striking down 1977 state Superior Court decisions at the blocked an earlier MDC and that had blocked an earlier MDC.

akeover attempt.

Dukakis, who has ultimate authorty over the MDC, will decide the

who said the governor "understands that a lot has changed since 1977." Dukakis, however, greeted the recent Supreme Judicial Court's deci-

er, cent Supreme Judicial Court's detat sion as a statement of victory is ob-linued! and those of the Save Prowury Parm campaign, a group that is the cludes actor Robert Redford and goldor Armold Palmer.

> said at the time. "This reinforces our commitment to the environment," Codes President Jim Storey, meanwhile, responded to the court's decision by saying the firm was "about to be run out of the commonwealth jof

ther in the state and will build its world headquarters elsewhere.

Codex's entire U.S. manufacturis operations are in Massachusett along with 2,121 members of its U.1 labor force of 2,670.

Since its purchase of Provi

Since its purchase of Prove Parm, Ooder has been embrylided in bettle with Massachusetts environmentalists, who claimed the firm development there would have a native of the most of the control of the

Last year, it began building it world headquarters on the site. Th headquarters building was roughl one-third finished, with 65% of it concrete in place and 67% of its secreted, when the court hunde down its decision, Storey said. But Densey said the firm had bee

nut Densey such te firm had own warned by the state not to begin construction until all legal challenges regarding the property had ended.
Storey said four prior court rulings in the firm's favor, as well as administrative board decisions that related to give the farm historic site or protected wetlands status, led the company to believe it was age to proceed.

Storey said the governor's opposiion to the firm's development made in think Massachusetts state govrument had soured on its high-tech adustries, a theory Dorsey rejected.

EDS, Cullinet announce OEM, licensing pacts

WESTWOOD, Mass. — Culling Software, Inc., located here, recentle announced licensing and OEM agreements with Electronic Data System Corp. (ELS), which is located in Da.

According to Cullinet, the licening agreement provides EDS with a cense to Cullinet's data base so ware, including IDMS/R, tirelational data base management sy

Also included in the agreemes were Bonness to Goldengate, a set of intagrated management tools for the IBM Fernonal Computer, and the information Database, a two-way communications link between the Person al Computer and mainframe dat bases, according to a spokesmen for Cullinet.

The nonexclusive OEM agreemes according to Cultinet, permits EDG sublicense Cultinet products to EI clients receiving value added EI

Callinet, said, "The OEM agreement between our two firms will result in unique and mutually beneficial business opportunity in the informatic technology and system integrations."

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users to combine CRT and print data over one dial-up line. 80 types of ASCII async display terminals can emulate 1BM 3278 display stations, and ASCII asyn printers to emulate 1BM 328X

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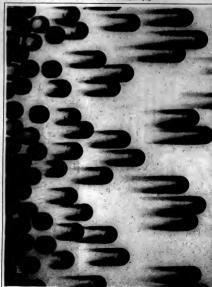
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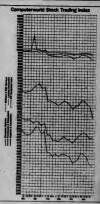
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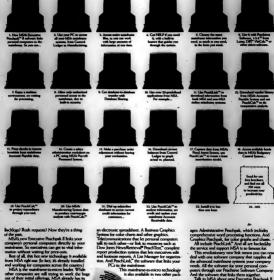


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